D - COMMUNITY SURVEY

Shortly after the Town Hall meetings were held, a survey was sent to each city, village, or township leader. This survey was intended to gain a profile of each community within Macomb County and how the hazards related to them. The survey has been included in this section of the appendix along with the letter, which was sent to each community leader. Also included in this section is a list of the community leaders names and titles and the community they represent. The list also includes additional officials who participated in the completion of the survey.

MACOMB COUNTY
OFFICE OF EMERGENCY MANAGEMENT AND COMMUNICATIONS
COUNTY BUILDING - 1ST FLOOR
10 NORTH MAIN STREET
MOUNT CLEMENS, MICHIGAN 48043
Phone (586) 469-5270
Fax (586) 469-6439

Louis E. Mioduszewski
Director

Victoria Wolber
Assistant Director

July 2, 2004

«Prefix» «First_Name» «Last_Name»
«Title»
«Representing»
«Address»
«City», «State» «Zip_Code»

Dear «Prefix» «Last_Name»,

The Macomb County Office of Emergency Management is updating the *Macomb County Hazard Mitigation Plan* to meet the requirements of the Disaster Mitigation Act of 2000 and to incorporate comments received from the Federal Emergency Management Agency (FEMA) Region V. We need your assistance in this effort.

Please complete and return the attached survey by July 30, 2004. You may want several of your staff to help complete the survey. Key stakeholders include the Fire and Police Chief, Community Planner, Emergency Manager, and Public Works Director. The information will enable us to update your community profile and accomplish an effective hazard analysis for your area of the county. Please be accurate and detailed in your answers.

This planning process will help Macomb County and its communities to identify key hazards such as flooding, tornadoes, utility failures and other natural disasters and man-caused incidents. Another objective of the Plan is to *develop strategies to prevent or minimize the impacts of these events.* Mitigation projects to support these strategies can then be developed and funded using Federal grants that typically cover 75 percent of the costs. FEMA has determined that every dollar spent in mitigation saves at least two dollars in emergency response and recovery costs. In some cases, the paybacks can be much greater.

Under the Disaster Mitigation Act of 2000, every community must have an approved and adopted Hazard Mitigation Plan to be eligible for Federal mitigation grants. In Michigan, this responsibility is delegated through the Michigan State Police Emergency Management Division down to the County level. For Macomb County, the Office of Emergency Management is taking the lead to create a single multi-jurisdictional 'all hazards' plan that will address the needs of the County and each individual city, township, and village. Once the Plan has been drafted, coordinated, and finalized, each community's city council or governing body will need to formally approve and adopt the plan as their own.

Attached is the Disaster Mitigation Act of 2000 and the Macomb County Hazard Mitigation Planning effort fact sheet. Please refer to it for more information. Later, we will ask you to review the draft Hazard Mitigation Plan for completeness and accuracy.

Sincerely,

Peter Locke
Emergency Services Aide

cc: L Mioduszewski, Macomb County
C Groover, P.E., SDA

Please complete the following survey to help provide us with information needed to update the Macomb County Hazard Mitigation Plan. If you would like to fill out the Community Survey on the computer, the file is available as a 'Word' document at www.macombcountymi.gov/oem. Submit the completed survey to:

Spalding DeDecker Associates, Inc.
c/o Scott Wanagat, Engineer
220 W. Congress, Suite 400
Detroit, MI 48226
(313)-967-4700

Community Survey

Community (Township, City, or Village)**:** _____

Name: _____ **Title:** _____

Office/Department: _____

Address: _____ **Phone:** _____

_____ **Fax:** _____

E-mail: _____

Community Profile

Population

If your community has conducted a population survey since the 2000 Census, please provide that information below. Otherwise, SDA will use the 2000 Census and you do not need to fill this section out.

Total population of community: _____ people

One-Family Detached: _____ people
One-Family Attached: _____ people
Two-Family / Duplex: _____ people
Multi-Unit Apartments: _____ people
Mobile Homes: _____ people
Other Units: _____ people

Critical Facilities & Infrastructure

Using the tables on the next 3 pages, please identify any facilities and infrastructure that are essential to the community and maintaining quality of life. Include facilities or infrastructure that house or support high concentrations of people.

Facilities
Please indicate the name, location, and approximate number of people (at any given time) utilizing the facility, for each significant facility in the categories listed below. Where you need more room, please use the 'Additional Facilities & Infrastructure' table on page 4.

Category		Name	Location	# of People
Police Precincts:	1.			
	2.			
	3.			
Schools:	1.			
	2.			
	3.			
Fire Stations:	1.			
	2.			
	3.			
Hospitals/Medical Buildings:	1.			
	2.			
	3.			
Public Works Yards:	1.			
	2.			
Government Buildings:	1.			
	2.			
Shopping Centers:	1.			
	2.			
Other:	1.			
	2.			
	3.			

Infrastructure
Please indicate each vital or critical infrastructure in the categories listed below. Where you need more room, please use the 'Additional Facilities & Infrastructure' table on page 4.

Category		Name	Location	# of People
Railroads and Bridges:	1.			
	2.			
	3.			
	4.			
Water Treatment Facilities, Pump Stations (Storm or Sanitary):	1.			
	2.			
	3.			
Dams, Power Stations:	1.			
	2.			
	3.			
Airports, Train Stations, Military Bases:	1.			
	2.			
Siren or Warning Systems:	1.			
	2.			

Additional Facilities & Infrastructure
Please use this table for any additional Facilities and Infrastructure you may have.

Category		Name	Location	# of People
	1.			
	2.			
	3.			
	1.			
	2.			
	3.			
	1.			
	2.			
	3.			
	1.			
	2.			
	3.			
	1.			
	2.			
	3.			
	1.			
	2.			
	3.			
	1.			
	2.			
	3.			
	1.			
	2.			
	3.			
	1.			
	2.			
	3.			

Maps

SDA will obtain any available Federal, State, Regional, and County maps that are available. If your community has maps that provide additional or more detailed local information, please provide them with the survey. Provide a local hazard map that identifies historical and potential hazards and their locations in the community. If maps are electronic, please describe where they can be downloaded, or identify a contact person from whom to obtain them. If possible, provide a copy on CD. If no maps are available, a detailed description of the locations will suffice. Some helpful maps of the community include:

1. Hazard Maps showing locations of hazard events (identifying potential or historical hazard sites; i.e. - tornado touchdowns, hazardous material spills, dam failures, etc.)
2. Land Use and Development Maps (Current and/or Future)
3. Siren or Warning System Locations
4. Other local maps (Maps that are relevant to Hazard Mitigation Planning or show different aspects of community)

Hazards & Historical Data

The State of Michigan is susceptible to the following list of hazards. Please identify any recent and past occurrences of any of the following hazards in your community. All hazards are defined according to the "Michigan Hazard Analysis", EMD-PUB 103 from the Michigan State Police Emergency Management Division. Additionally, please indicate for the significant hazard events listed below, any historical data associated with the event. Please attach this information at the end of this survey. Some items include:

- Cost of Damages
- Funding Provided: Amounts, Sources
- For which efforts? (Clean-Up, Prevention, etc.)
- Injuries/Fatalities
- Severity of incidents (Extent/Measure of Disruption/Damage)
- Other (Interrupted services, closed roads, economic impact, social impact, # people affected)

Civil Disturbances – *A public demonstration or gathering, or a prison uprising, that results in a disruption of essential functions, rioting, looting, arson or other unlawful behavior.*

Drought - *A water shortage caused by a deficiency of rainfall, generally lasting for an extended period of time.*

Earthquakes - *A shaking or trembling of the crust of the earth caused by the breaking and shifting of rock beneath the surface. (Michigan is subject to the New Madrid fault zone.)*

Energy Emergencies – *An actual or potential shortage of gasoline, electrical power, natural gas, fuel oil, or propane of sufficient magnitude and duration to potentially threaten public health and safety, and economic and social stabilization.*

Extreme Temperatures - *Prolonged periods of very high or very low temperatures, often accompanied by other extreme meteorological conditions.*

Fire Hazards

Scrap Tire Fires - *A large fire that burns scrap tires being stored for recycling/re-use.*

Structural Fires - *A fire, of any origin, that ignites one or more structures, causing loss of life and/or property.*

Wildfires - *An uncontrolled fire in grasslands, brushlands or forested areas.*

Flooding Hazards

Dam Failures - *The collapse or failure of an impoundment that results in downstream flooding.*

Riverine and Urban Flooding - *The overflowing of rivers, streams, drains and lakes due to excessive rainfall, rapid snowmelt or ice. The overbank flows result in partial or complete inundation of the adjacent floodplain.*

Shoreline Flooding/Erosion - *The flooding and erosion of shoreline areas caused by high Great Lakes (Lake St. Clair included) water levels, storm surges, or winds.*

Hazardous Material Incidents

Fixed Site - *An uncontrolled release of hazardous materials from a fixed site capable of posing a risk to life, health, safety, property or the environment.*

Transportation - *An uncontrolled release of hazardous materials during transport capable of posing a risk to life, health, safety, property or the environment.*

Infrastructure Failures - *The failure of critical public or private utility infrastructure resulting in a temporary loss of essential functions and/or services.*

Nuclear Attack - *Any large-scale hostile action taken against the United States which involves nuclear weapons and results in destruction of military and/or civilian targets.*

Nuclear Power Plant Accidents - *An actual or potential release of radioactive material at a commercial nuclear power plant or other nuclear facility, in sufficient quantity to constitute a threat to the health and safety of the off-site population.*

Oil and Gas Well Accidents - *An uncontrolled release of oil or natural gas, or the poisonous by-product hydrogen sulfide, from production wells.*

Petroleum and Natural Gas Pipeline Accidents - *An uncontrolled release of petroleum or natural gas, or the poisonous by-product hydrogen sulfide, from a pipeline.*

Public Health Emergencies - *A widespread and/or severe epidemic, incident of contamination, or other situation that presents a danger to or otherwise negatively impacts the general health and well being of the public.*

Sabotage/Terrorism - *An intentional, unlawful use of force, violence or subversion against persons or property to intimidate or coerce a government, the civilian population, or any segment thereof, in furtherance of political, social, or religious objectives.*

Subsidence - *The lowering or collapse of the land surface caused by natural or human-induced activities that erode or remove subsurface support.*

Thunderstorm Hazards

Hail - *Conditions where atmospheric water particles from thunderstorms form into rounded or irregular lumps of ice that fall to the earth.*

Lightning - *The discharge of electricity from within a thunderstorm.*

Severe Winds (Windstorms) - *Non-tornadic winds of 58 miles per hour or greater.*

Tornadoes - *An intense rotating column of wind that extends from the base of a severe thunderstorm to the ground. A tornado may have winds up to 300+ miles per hour and an interior air pressure that is 10-20 percent below that of the surrounding atmosphere.*

Air, Land, and Water Transportation Accidents - *A crash or accident involving an air, land or water-based commercial passenger carrier.*

Severe Winter Weather Hazards

Ice and Sleet Storms - *A storm that generates sufficient quantities of ice or sleet to result in hazardous conditions and/or property damage.*

Snowstorms - *A period of rapid accumulation of snow often accompanied by high winds, cold temperatures, and low visibility.*

Please use the space below to indicate any **community-unique** hazards (**not** included in the previous list) for your community. Describe in detail why it is unique to your community and what kind of impact the hazard has on the community.

Hazard	Uniqueness	Area Affected	Impact

Hazard Rating

Please rate the importance of each hazard aspect below in contributing to the seriousness of natural or man-caused disasters.

Hazard Aspect	Rating
Probability of occurrence	1 2 3 4 5
Population affected	1 2 3 4 5
Area affected	1 2 3 4 5
Potential for casualties & injuries	1 2 3 4 5
Potential for property damage	1 2 3 4 5
Potential for economic disruption	1 2 3 4 5
Corollary effects (utilities, infrastructure, & community services)	1 2 3 4 5

Where:
1 - Not worth considering
2 - Rarely of importance
3 - Sometimes important
4 - Usually important
5 - Always very important

The following tables on pages 10 and 11 relate these aspects to the hazards.

Community Survey

Use your knowledge and experience to fill out the table below. For the hazard types shown in the left column, please score the most likely impact within each hazard aspect. For best consistency, fill out the table by columns instead of rows. The scale is from 1-Least threatening condition to 5-Most threatening condition. N/A is equivalent to 'Not Applicable' or a score of '0'.

	HAZARD ASPECTS						
HAZARD TYPE	Probability of occurrence	Population affected	Area affected	Potential for casualties	Potential for property damage	Potential for economic disruption	Corollary effects (utilities & community services)
Civil Disturbances	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5
Drought	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5
Earthquakes	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5
Energy Emergencies	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5
Extreme Temperatures	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5
Scrap Tire Fires	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5
Structural Fires	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5
Wildfires	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5
Dam Failures	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5
Riverine Flooding	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5
Shoreline Flooding	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5
Fixed Site Hazmat Incident	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5
Transportation Hazmat Incident	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5
Infrastructure Failures	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5

Community Survey

Use your knowledge and experience to fill out the table below. For the hazard types shown in the left column, please score the most likely impact within each hazard aspect. For best consistency, fill out the table by columns instead of rows. The scale is from 1-Least threatening condition to 5-Most threatening condition. N/A is equivalent to 'Not Applicable' or a score of '0'.

	HAZARD ASPECTS						
HAZARD TYPE	Probability of occurrence	Population affected	Area affected	Potential for casualties	Potential for property damage	Potential for economic disruption	Corollary effects (utilities & community services)
Nuclear Attack	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5
Nuclear Power Plant Accidents	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5
Oil & Gas Well Accidents	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5
Pipeline Accidents	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5
Public Health Emergencies	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5
Terrorism/Sabotage /WMD	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5
Subsidence	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5
Hail	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5
Lightning	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5
Severe Winds	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5
Tornadoes	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5
Transportation Accidents	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5
Ice & Sleet Storms	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5
Snow Storms	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5	N/A 1 2 3 4 5

Hazard Ranking

Please rank, in order of most to least significant, the top ten hazards affecting your community. Refer to the 'Hazard & Historical Data' section for a definition and listing of all hazards.

Rank	Hazard
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	

Mitigation Projects

Please list and describe specific vulnerabilities within the Community that you believe warrant mitigation actions. Identify the location(s) or areas where those vulnerabilities exist and any proposed mitigation actions you would like to see implemented. Finally, include a rough estimate of the costs to implement the mitigation actions. Make a copy of the blank form and include additional projects if the space supplied is not adequate.

Description of Specific Community Vulnerabilities	Location	Proposed Mitigation Actions	Estimated Cost

Thank you for completing this survey. Your valued input will help us in reducing the impact of the hazards affecting Macomb County and its communities. The completed survey can be submitted to:

Spalding DeDecker Associates, Inc.
c/o Scott Wanagat, Engineer
220 W. Congress, Suite 400
Detroit, MI 48226
(313)-967-4700

Macomb County Community Leaders

Representing	*Prefix*	*First Name*	*Last Name*	*Title*
Armada Township	Ms.	Monica	Job	Supervisor
Bruce Township	Mr.	Gary C.	Schocke	Supervisor
Chesterfield Township	Mr.	Jim	Ellis	Supervisor
City of Center Line	Ms.	Mary Ann	Zielinski	Mayor
City of Eastpointe	Mr.	Dan	Hagen	Fire Chief
City of Eastpointe	Mr.	David	Austin	Mayor
City of Fraser	Mr.	Robert	Vanfletern	Fire Chief
City of Fraser	Ms.	Marilyn	Lane	Mayor
City of Memphis	Mr.	George K.	Kirkindall	Mayor
City of Mount Clemens	Mr.	Quinnie E.	Cody	Mayor
City of New Baltimore	Mr.	Joe	Grajek	Mayor
City of Richmond	Mr.	Tim	Rix	Mayor
City of Roseville	Mr.	Gerald	Alsip	Mayor
City of St. Clair Shores	Mr.	Curtis L.	Dumas, Jr.	Mayor
City of Sterling Heights	Mr.	Richard J.	Notte	Mayor
City of Sterling Heights	Mr.	J. Robert	Johnson	Emergency Manager
City of Utica	Ms.	Jacqueline K.	Noonan	Mayor
City of Warren	Mr.	Mark A.	Steenbergh	Mayor
City of Warren	Mr.	Ronald	Kibzey	Fire Chief

Representing	*Prefix*	*First Name*	*Last Name*	*Title*
City of Warren	Lt.	Dennis	Devooght	Emergency Manager
Clinton Township	Mr.	Robert J.	Cannon	Supervisor
Clinton Township	Mr.	Paul S.	Brouwer	Emergency Coordinator
Harrison Township	Mr.	Mark	Knowles	Supervisor
Harrison Township	Mr.	Carl	Seitz	Fire Chief
Lake Township	Mr.	Richard F.	Fox	Supervisor
Lenox Township	Mr.	John	Gardner	Supervisor
Macomb Township	Mr.	John D.	Brennan	Supervisor
Ray Township	Mr.	Charles	Bohm	Supervisor
Ray Township	Mr.	James	DiMaria	Fire Chief
Richmond Township	Mr.	Gordon	Fuerstenau	Supervisor
Shelby Township	Mr.	Ralph	Maccarone	Supervisor
Village of Armada	Ms.	Nancy W.	Parmenter	President
Village of New Haven	Mr.	Ken	Simms, Sr.	President
Village of Romeo	Mr.	Paul	Reiz	President
Washington Township	Mr.	Gary R.	Kirsh	Supervisor